REMARKS

Claims 1-4, 7-19, and 21-28 are pending in the present Application. Claim 7 has been canceled, Claims 1, 18, and 24 have been amended, and no claims have been added, leaving Claims 1-4, 8-19, and 21-28 for consideration upon entry of the present Amendment.

Amendments to Claims

Claims 1, 18, and 24 have each been amended and narrowed to include the limitations of Claim 7, canceled herewith, and for which amendments support can additionally be found in the instant Specification on p. 12, line 1 to p. 15, line 12, and p. 10, lines 9-19. No new matter has been introduced by these amendments.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-28 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent Application Publication No. 2003/0119961 ("Oshima") in view of U.S. Patent Application Publication No. 2002/0149725 ("Hashimoto"). Applicants respectfully note that the Examiner has included rejections to Claims 5, 6, and 20, each of which was canceled in the previously filed response to office action, and respectfully request the Examiner so note this when updating the status of these claims accordingly. Applicants respectfully traverse this rejection of the remaining Claims 1-4, 7-10, and 21-28.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, or knowledge generally available in the art at the time of the invention, must provide some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). "A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.,* 127 S.Ct. 1727, 1741 (2007). To find obviousness, the Examiner must "identify a reason that

would have prompted a person of ordinary skill in the art in the relevant field to combine the elements in the way the claimed new invention does." *Id.*

The protection layer of a transparent film as claimed in the instant claims comprises a cyclic olefin-based addition polymer of the compound represented by Chemical Formula 1 containing at least one polar functional group. The transparent film which as claimed, comprises the cyclic olefin-based addition polymer, has a specific retardation value (R_{th}) along the film thickness direction. In addition, the transparent film has excellent surface tension, and it also has excellent adhesion to polarizing film such as a polyvinyl alcohol (PVA) film.

Therefore, the transparent film can be used as an optical compensation film of LCD (Liquid Crystal Display) as well as a protection film of a polarizing film. That is, an LCD comprising the polarizing plate does not need an additional optical compensation film.

Regarding the combination of Oshima with Hashimoto, Oshima discloses an optically transparent material comprising a cyclic olefin addition copolymer containing reactive silyl group and a cross-linking catalyst (at least one compound selected from compounds 1), 2), 3), and 4) of Oshima. See Oshima, ¶ [0264], and Claim 7. The cross-linking catalyst (comprising compound 1), 2), 3), or 4)) of Oshima catalyzes the reaction of the polymers having reactive silyl groups to form siloxane bonds, by which the cyclic olefin addition copolymer cross-links. Oshima, ¶¶ [0044] and [0264]. However, as claimed in amended instant Claims 1, 18, and 24, the instantly claimed cyclic olefin-based addition polymer does not include a reactive silyl group. Nor does the transparent film as instantly claimed comprise a cross-linking catalyst. Thus, unlike the optically transparent material of Oshima, the cyclic olefin-based addition polymer in the transparent film as instantly claimed is not cross-linked.

Oshima discloses preparation of a retardation film with a thickness of 80 μm, having a retardation value of 136 μm (which is significantly larger than the maximum claimed value of 1,000 nm in instant Claim 1) when measured at a wavelength of 633 nm (note that Oshima does not disclose specifically whether the retardation value is measured in plane or for thickness). Oshima, ¶ [0405]. One skilled in the art will further appreciate that the refractive index can vary with wavelength depending on the composition of the material being tested, though assuming for the sake of argument that the refractive indices were comparable at a

wavelength 633 nm disclosed by Oshima and at a wavelength of 550 nm as claimed in instant Claim 1, the retardation values are still not identical, and there would be no reason to expect the retardation value of Oshima to fall within the claimed range of instant Claim 1.

Oshima therefore apparently discloses a film with a retardation value greater than that claimed in instant Claim 1, and in any event, Oshima fails to disclose these limitations of Claim 1. As mentioned hereinabove, one skilled in the art will appreciate that refractive indices of polymer films will vary with polymer composition, and that different cycloolefin monomers having different functional groups will have different refractive indices. When viewed in this way, the requirement for retardation value falling within a particular range should be viewed as a further compositional limitation for the cycloolefin polymer claimed in Claim 1. Oshima specifies that the cycloolefin polymers disclosed therein have both a reactive silylated monomer (for crosslinking purposes; of formula 1) and a second monomer (of formula 2). See Oshima, ¶¶[0044]-[0051] and [0058]. There is neither a requirement of crosslinking in the composition of the instant claims, nor is there a requirement in the amended independent claims of the silylated monomers disclosed in Oshima. Oshima therefore does not disclose the cycloolefin polymer claimed in Claims 1, 18, and 24.

Further Oshima discloses that the optically transparent materials can be used as a retardation film. However, the retardation film of the reference by Oshima is produced by subjecting the film to a stretching-orientation treatment. See Oshima, ¶ [0405]. Also, the reference by Oshima does not disclose the concrete optical property such as the retardation value along the film thickness direction (R_{th}). In contrast, the transparent film according to the present invention does not require a stretching-orientation treatment, and has a specific retardation value (R_{th}) along the film thickness direction *without stretching,* by including a cyclic olefin-based addition polymer containing at least one *polar functional group*. See Specification, p. 8, line 23 to p. 9, line 9; and p. 10, lines 9-19.

Hashimoto discloses an optical compensation film comprising a norbornene resin with a retardation value in the thickness direction (R_{th}) of 10-1,000 nm (measured at a wavelength of 550 nm) when the film thickness is set to 10-500 μm for a unilaterally or biaxially stretched film. Hashimoto, ¶¶ [0073], [0067] to [0068], [0115], and [0718].

Hashimoto also extensively discloses that the polarizing plate comprises transparent protective film, and the transparent protective film comprises a *transparent stretched film* and an *optically anisotropic layer* formed from discotic liquid crystal molecules. Hashimoto, Abstract; ¶ [0018], In addition, light leaks have been disclosed to be controlled (in a polarizing plate) by stretching the transparent film 10-30%. Hashimoto, ¶ [0037]. Retardation values R_e and R_{th} are controlled by a stretching process involving 1.) stretching the transparent film with solvent present, 2.) by using a low expanding ratio and low speed, or 3.) stretching by controlled thermal distribution. Hashimoto, ¶¶ [0092] to [0102].

Thus, in Hashimoto, a norbornene resin is disclosed as being useful as the transparent stretched film, but no description of norbornene resins or substituent groups, and no exemplary addition polymerized norbornene resins, have been disclosed. Hashimoto, ¶¶ [0073] and [0131]. Applicants note specifically that the "norbornene resin" Artone (available from JSR Co., Ltd.) disclosed in Examples 5 and 8 of Hashimoto is not a cyclic olefin-based addition polymer of the type claimed by Applicants, but is in fact a cyclic olefin-based *ring opened polymer*. Hashimoto, Examples 5 and 8. Applicants have clearly disclosed that such ring opened metathesis polymers (ROMP) are not desired for use in Applicant's invention, and are taught in the prior art as differing in glass transition temperature. See instant Specification, p. 5, Reaction Formula 1 and lines 11-17.

The polarizing plate disclosed in the instant Specification does not include an optically anisotropic layer formed from liquid crystal molecules as disclosed in Hashimoto, and the transparent film according to the subject invention does not need to be stretched. Hashimoto, [0159]. That is, the transparent film according to the subject invention can be used as an optical compensation film of LCD as well as a protection film of a polarizing film *without* stretching, by comprising a cyclic olefin-based addition polymer *containing at least one polar functional group*. Therefore, combining the disclosure of Oshima with that of Hashimoto, each of which discloses a stretched film, fails to provide a suggestion or incentive that would lead one skilled in the art to combine these references and modify the combination to be an unstretched film, as claimed in the instant claims.

Oshima in view of Hashimoto therefore fails to teach or disclose the norbornene polymer of the instant claims and therefore fails to teach all elements of the instant claims;

provides no teaching or incentive that would lead one skilled in the art to modify the composition of Oshima for use as a retardation film as in Hashimoto and having the properties of that claimed in Claim 1, absent a stretching of the film and crosslinking of the polymer. Further, as Oshima and Hashimoto each disclose a stretching of the transparent film, there can be no reasonable expectation that combining each of these disclosures, and then modifying the combination to eliminate the stretching, would work as disclosed. In this regard, the courts have held that "[i]f the proposed modification would render the prior art invention being modified unsatisfactorily for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon* 733 F. 2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The courts have also held that '[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.'" *In re Ratti* 270 F. 2d 810, 123 USPQ 349 (CCPA 1959). As both Oshima and Hashimoto disclose stretched films, and Hashimoto extensively so to achieve the desired effects thereof, one skilled in the art would expect that such modification would render any combination of Oshima and Hashimoto unsuited to the intended purpose of the disclosures of Oshima and Hashimoto. Thus, there would be no reasonable expectation that use of the composition of Oshima would be successful when applied to the retardation film as disclosed in the instant specification and claimed in the instant Claims. Reconsideration and allowance are therefore respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP

By: /Dana A. Gronbeck/
Dana A. Gronbeck
Reg. No. 55,226
Confirmation No. 6242
CANTOR COLBURN LLP
20 Church Street, 22nd Floor
Hartford, CT 06103
Telephone: 860-286-2929
Fax: (860) 286-0115
PTO Customer No. 23413

Date: July 15, 2008